

U.S. Patent Application Serial No. 10/531,952

Amendment filed November 5, 2008

Reply to OA dated October 10, 2008

AMENDMENTS TO THE CLAIMS:

Please amend claims 2-6, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Withdrawn): A resin composition comprising:

(A) a lactic acid based resin; and

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and

(B) the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, has a content of 5 mass% to 25 mass%.

Claim 2 (Currently amended): A resin composition comprising:

(A) a lactic acid based resin;

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and/or an aliphatic polyester other than the

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lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g[,]; and

(C) an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 50 J/g to 70 J/g;

wherein components (A) ~~the lactic acid based resin;~~ and (B) ~~the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g; and/or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g;~~ are contained in the resin composition in an amount of 90 mass% to 70 mass%; and

wherein component (B) is contained in the resin composition in an amount of 5 mass% to 25 mass%; and

wherein component (C) ~~an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 50 J/g to 70 J/g;~~ has a content of 10 mass% to 30 mass% in the resin composition ; and

~~—— (B) the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g; and/or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g; are contained in an amount of 5 mass% to 25 mass%.~~

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Claim 3 (Currently amended): The resin composition according to claim 1 or 2, further comprising (D) an inorganic filler having a mean particle size of 1 μm to 5 μm ,

wherein component (D) is within a range of 5 mass% to 20 mass% of the resin composition.

Claim 4 (Currently amended): The resin composition according to any one of claims 1 and 2, further comprising 0.5 mass part to 10 mass parts of a carbodiimide compound based on a total of 100 mass parts of components (A) ~~the lactic acid based resin~~, (B) ~~the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and/or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and~~ (C) ~~the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 50 J/g to 70 J/g.~~

Claim 5 (Currently amended): The resin composition according to any one of claims 1 and 2, further comprising 0.5 mass part to 5 mass parts of an ester compound having a molecular weight of 200 to 2,000 based on a total of 100 mass parts of components (A) ~~the lactic acid based resin~~, (B) ~~the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and/or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and~~ (C) ~~the aliphatic polyester other than the lactic acid based resin, having~~

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~~a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 50 J/g to 70 J/g.~~

Claim 6 (Currently amended): The resin composition according to any one of claims 1 and 2, further comprising 0.1 mass part to 5 mass parts of a hiding agent having a refractive index of 2.0 or more based on a total of 100 mass parts of components (A) ~~the lactic acid-based resin~~, (B) ~~the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and/or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and (C) ~~the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 50 J/g to 70 J/g.~~~~

Claim 7 (Previously presented): A molded article formed by injection molding the resin composition according to any one of claims 1 and 2.

Claim 8 (Original): The injection molded article according to claim 7, wherein the molded article formed by the injection molding is further crystallized at a temperature within a range of 60°C to 130°C .

Claim 9 (Withdrawn): A resin composition comprising:

(A) a lactic acid based resin;

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, or an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and

(B) the aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, or the aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, has a content of 5 mass% to 25 mass%; and

(D) an inorganic filler having a mean particle size of 1 μm to 5 μm , has a content of 5 mass% to 20 mass% of the resin composition.

Claim 10 (Withdrawn): A resin composition comprising:

(A) a lactic acid based resin;

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, or an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and

the above component (B) has a content of 5 mass% to 25 mass%; and

0.5 mass part to 10 mass parts of a carbodiimide compound based on a total of 100 mass parts of the above component (A) and the above component (B).

Claim 11 (Withdrawn): A resin composition comprising:

(A) a lactic acid based resin;

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, or an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and

the above component (B) has a content of 5 mass% to 25 mass%; and

0.5 mass part to 5 mass parts of an ester compound having a molecular weight of 200 to 2,000 based on a total of 100 mass parts of the above component (A) and the above component (B).

Claim 12 (Withdrawn): A resin composition comprising:

(A) a lactic acid based resin;

(B) an aromatic aliphatic polyester having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, or an aliphatic polyester other than the lactic acid based resin, having a glass transition temperature (T_g) of 0°C or less and a heat of crystal melting (ΔH_m) of 5 J/g to 30 J/g, and

the above component (B) has a content of 5 mass% to 25 mass%; and

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0.1 mass part to 5 mass parts of a hiding agent having a refractive index of 2.0 or more based on a total of 100 mass parts of the above component (A) and the above component (B).

Claim 13 (Withdrawn): An injection molded article formed by injection molding the resin composition according to any one of claims 9 to 12.

Claim 14 (Withdrawn): The injection molded article according to claim 13, wherein the molded article formed by the injection molding is further crystallized at a temperature within a range of 60°C to 130°C.